

What is claimed is

at 1. An insulated gate type semiconductor device  
comprised of a semiconductor layer serving as an active  
region isolated from a semiconductor substrate by a  
5 substrate isolation insulating film, provided with a T-  
shaped gate electrode comprised of a trunk-shaped main  
gate electrode and a crosspiece-shaped conductor pattern  
and having a thickness of the gate insulating film  
directly under the crosspiece-shaped conductor pattern  
10 greater than the thickness of the gate insulating film  
directly under the main gate electrode.

2. An insulated gate type semiconductor device  
comprised of a semiconductor layer serving as an active  
region isolated from a semiconductor substrate by a  
15 substrate isolation insulating film, wherein a thickness  
of an insulating film provided on a surface of a first  
conductivity type semiconductor region positioned at an  
interface between that first conductivity type body  
contact region and a second conductivity type source and  
20 drain regions is made greater than the thickness of a  
gate insulating film directly under a gate electrode.

3. An insulated gate type semiconductor device  
comprised of a semiconductor layer serving as an active  
region isolated from a semiconductor substrate by a  
25 substrate isolation insulating film, wherein a buried  
insulating film thicker than the thickness of the gate  
insulating film directly under a gate electrode is  
provided on a surface of a first conductivity type  
semiconductor region positioned at an interface between  
30 that first conductivity type body contact region and a  
second conductivity type source and drain regions.

4. An insulated gate type semiconductor device  
comprised of a semiconductor layer serving as an active  
region isolated from a semiconductor substrate by a  
35 substrate isolation insulating film, wherein a gate  
electrode of a shape of either one of an L-shape or  
asymmetric T-shape comprised of a trunk-shaped main gate

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electrode and a crosspiece-shaped conductor pattern is provided and a body contact region and one of a source region and drain region are isolated through said crosspiece-shaped conductor pattern.

5           5. An insulated gate type semiconductor device comprised of a semiconductor layer serving as an active region isolated from a semiconductor substrate by a substrate isolation insulating film, wherein a gate electrode of a shape of either one of an L-shape or  
10 asymmetric T-shape comprised of a trunk-shaped main gate electrode and a crosspiece-shaped conductor pattern is provided and at least part of said crosspiece-shaped conductor pattern functions as an effective gate electrode.

15           6. A method for fabricating an insulated gate type semiconductor device comprised of a semiconductor layer serving as an active region isolated from a semiconductor substrate by a substrate isolation insulating film, comprising the steps of:

20                 providing a gate insulating film partially differing in thickness on the surface of said semiconductor layer;

                  providing a crosspiece-shaped conductor pattern on a thick portion of said gate insulating film and providing a trunk-shaped main gate electrode on the  
25 gate insulating film to form a T-shaped gate electrode;

                  forming sidewalls on side faces of said gate electrode;

30                 doping an impurity using said main gate electrode and crosspiece-shaped conductor pattern as a mask to form source and drain regions;

                  doping an impurity using said crosspiece-shaped conductor pattern as a mask to form a body contact region; and

35                 depositing a metal film over the entire surface and then performing heat treatment to form a silicide electrode.

7. A method for fabricating an insulated gate type semiconductor device comprised of a semiconductor layer serving as an active region isolated from a semiconductor substrate by a substrate isolation insulating film, comprising the steps of:

providing a gate insulating film partially differing in thickness on the surface of said semiconductor layer;

providing a crosspiece-shaped conductor pattern on a thick portion of said gate insulating film and providing a trunk-shaped main gate electrode on the gate insulating film to form a T-shaped gate electrode;

forming sidewalls on side faces of said gate electrode;

doping an impurity using said main gate electrode and crosspiece-shaped conductor pattern as a mask to form source and drain regions;

doping an impurity using said crosspiece-shaped conductor pattern as a mask to form a body contact region; and

removing said crosspiece-shaped conductor pattern, then depositing a metal film over the entire surface and performing heat treatment to form a silicide electrode.

8. A method for fabricating an insulated gate type semiconductor device comprised of a semiconductor layer serving as an active region isolated from a semiconductor substrate by a substrate isolation insulating film, comprising the steps of:

forming a groove of a different depth in the surface of said semiconductor layer and burying the groove by an insulator to form an element isolation insulating film and an intra-element isolation insulating film;

providing a gate electrode on a gate insulating film;

forming sidewalls on side faces of said

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